

APM 932

ASARCO

CADMIUM OXIDE

MATERIAL SAFETY DATA SHEET

CA ASARCO 1

GENERAL INFORMATION

TRADE NAME (COMMON NAME OR SYNONYM) Cadmium oxide		ASARCO PRODUCT CODE #	
CHEMICAL NAME Cadmium oxide			
FORMULA CdO		MOLECULAR WEIGHT 128.4	
ADDRESS (No. STREET, CITY, STATE AND ZIP CODE) ASARCO 120 Broadway New York, New York 10271 Phone: 212-669-1000			
CONTACT General Information - Department of Environmental Sciences		PHONE NUMBER DAY 801-262-2459 NIGHT 801-943-1754	ISSUED DATE 4/11/83
First Aid Information - (Dr. C. H. Hine)		DAY 415-777-2213 NIGHT 415-777-2214	REVISED DATE 4/11/83
Transportation Emergencies - CHEMTREC		800-424-9300	



HAZARD IDENTIFICATION

MATERIAL OR COMPONENT	C.A.S. #	WT. %	PERMISSIBLE AIR CONCENTRATION
Cadmium oxide	1306-19-0	99.7	See Section K
			<input checked="" type="checkbox"/> OSHA <input type="checkbox"/> ACGIH <input type="checkbox"/> OTHER

FIRST AID MEASURES

Inhalation: If symptoms of respiratory distress occur or there has been a known exposure to dense fume, remove from exposure, place individual at bed rest, and immediately call a physician.

Ingestion: Induce vomiting in a conscious individual; immediately call a physician.

HEALTH

INHALATION

A single exposure to CdO fume can cause an acute poisoning with severe lung irritation and pulmonary edema, which may be fatal. Chronic cadmium poisoning is characterized by lung injury (emphysema) and kidney dysfunction (proteinuria).

INGESTION

Cadmium is highly irritating to the stomach lining. Ingestion of cadmium salts may produce nausea and vomiting.

SKIN

Possible mechanical irritation of skin.

EYES

Mechanical irritation

MEDICAL CONDITIONS POSSIBLY AGGRAVATED

Diseases of the lung and kidneys.

UNUSUAL CHRONIC TOXICITY

Chronic cadmium poisoning characterized by distinctive lung injury (emphysema) and kidney dysfunction (proteinuria) which may become permanent may occur. Cadmium is a suspect carcinogen.

FIRE AND EXPLOSION

FLASH POINT	°C	AUTO IGNITION TEMPERATURE	°C	FLAMMABLE LIMITS IN AIR (% BY VOL.)
NOT APPLICABLE		NOT APPLICABLE		NOT APPLICABLE
OPEN CUP	CLOSED CUP			

UNUSUAL FIRE AND EXPLOSION HAZARDS

NOT APPLICABLE

PRECAUTIONS PROCEDURES

FIRE EXTINGUISHING AGENTS RECOMMENDED

No specific agents recommended.

FIRE EXTINGUISHING AGENTS TO AVOID

No specific agents.

SPECIAL FIRE FIGHTING PRECAUTIONS

Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if involved in fire.

ENGINEERING CONTROLS

Local exhaust ventilation is required for screening, heating, dumping, shoveling, or other operations where excessive airborne exposures may occur.

NORMAL HANDLING

Use any methods which keep dust to a minimum. Use of approved respirators is required for applications where adequate ventilation cannot be provided. Bulk dust handling requires the use of full protective clothing.

STORAGE

General storage procedures acceptable.

SPILL OR LEAK

A clean-up procedure which minimizes exposure is required. Vacuuming is preferred. Place all material in closed containers. Do not use compressed air for cleaning. Use approved respiratory protection if possibility of dust/fume exposure exists.

SPECIAL PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS

Label signal word:

PERSONAL HYGIENE

Practice good housekeeping and personal hygiene procedures. No tobacco or food in work area. Wash thoroughly before eating or smoking. Avoid ingestion or inhalation. Take a shower and change clothes at end of shift. Do not wear contaminated clothes off of clothes.

PERSONAL PROTECTIVE EQUIPMENT**RESPIRATORY PROTECTION**

NIOSH/MSHA approved respirator for toxic dust and/or fume.

EYES AND FACE

Safety glasses recommended where the possibility of getting dust particles in eyes exists.

HANDS, ARMS, AND BODY

Gloves or other protective clothing required if skin contact is appreciable.

OTHER CLOTHING AND EQUIPMENT

Full protective clothing is required for bulk dust handling.
All contaminated clothing should be removed before leaving plant premises.

PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS): <input type="checkbox"/> LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GAS <input type="checkbox"/> _____		APPEARANCE AND ODOR Brown powder, odorless	
BOILING POINT NOT APPLICABLE MELTING POINT Decomposes at 900 C		SPECIFIC GRAVITY (H ₂ O = 1) 8.15	VAPOR DENSITY (AIR = 1) NOT APPLICABLE
SOLUBILITY IN WATER (% by Weight) INSOLUBLE		pH NOT APPLICABLE	VAPOR PRESSURE (mm Hg at 20° C) <input type="checkbox"/> (PSIG) <input type="checkbox"/> NOT APPLICABLE
EVAPORATION RATE (Butyl Acetate = 1) <input type="checkbox"/> (Ether = 1) <input type="checkbox"/> NOT APPLICABLE		% VOLATILES BY VOLUME (At 20° C) NOT APPLICABLE	

REACTIVITY DATA

STABILITY <input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE	CONDITIONS TO AVOID NOT APPLICABLE
INCOMPATIBILITY (MATERIALS TO AVOID) Magnesium plus heat may react explosively.	
HAZARDOUS DECOMPOSITION PRODUCTS CdO fumes may be generated at temperatures approaching the decomposition point.	
HAZARDOUS POLYMERIZATION <input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR	CONDITIONS TO AVOID NOT APPLICABLE

HAZARDOUS WASTE INFORMATION SHEET

EPA HAZARDOUS SUBSTANCE? ☐ YES ☒ NO IF SO, REPORTABLE QUANTITY: _____ #

40 CFR
116-117

WASTE DISPOSAL METHODS (DISPOSER MUST COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS)

If hazardous under 40 CFR 261, Subparts B and C, material must be treated or disposed in a facility meeting the requirements of 40 CFR 264 or 265. If non-hazardous, material should be disposed in a facility meeting the requirements of 40 CFR 257.

RCRA STATUS OF UNUSED MATERIAL:

40 CFR
261-11

If discarded in unaltered form, material should be considered a hazardous waste due to listing in 40 CFR 261.11(3), Appendix VIII. Under specific circumstances, application can be made to the EPA Administrator to have a particular waste designated non-hazardous.

REFERENCES

PERMISSIBLE CONCENTRATION REFERENCES

OSHA regulations for airborne contaminants 29 CFR 1910.1000

HAZARD INFORMATION REFERENCES

"Documentation of the Threshold Limit Values," 4th Ed., ACGIH
Patty's Industrial Hygiene and Toxicology, Vol. 2A, 3rd Rev. Ed., 1980
EPA "Fire Protection Guide on Hazardous Materials," 6th Ed., 1975
"Criteria for a Recommended Standard...Occupational Exposure to Cadmium," NIOSH, 1976

GENERAL

ADDITIONAL INFORMATION

Information (hazards, precautions, first aid, etc.) is abbreviated. More detailed information is contained in reference Section J.

OSHA Permissible Air Concentration as Cadmium:

Dust: 0.2 mg/cu.m., 0.5 mg/cu.m.—ceiling
Fume: 0.1 mg/cu.m., 0.3 mg/cu.m.—ceiling

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